



Global green taxonomy development, alignment, and implementation

Contents

Background 2

1. Introduction 3

2. Audit of international taxonomy development 4

3. Case study: Aligning the China and EU taxonomies 6

4. Implementation of green taxonomies 9

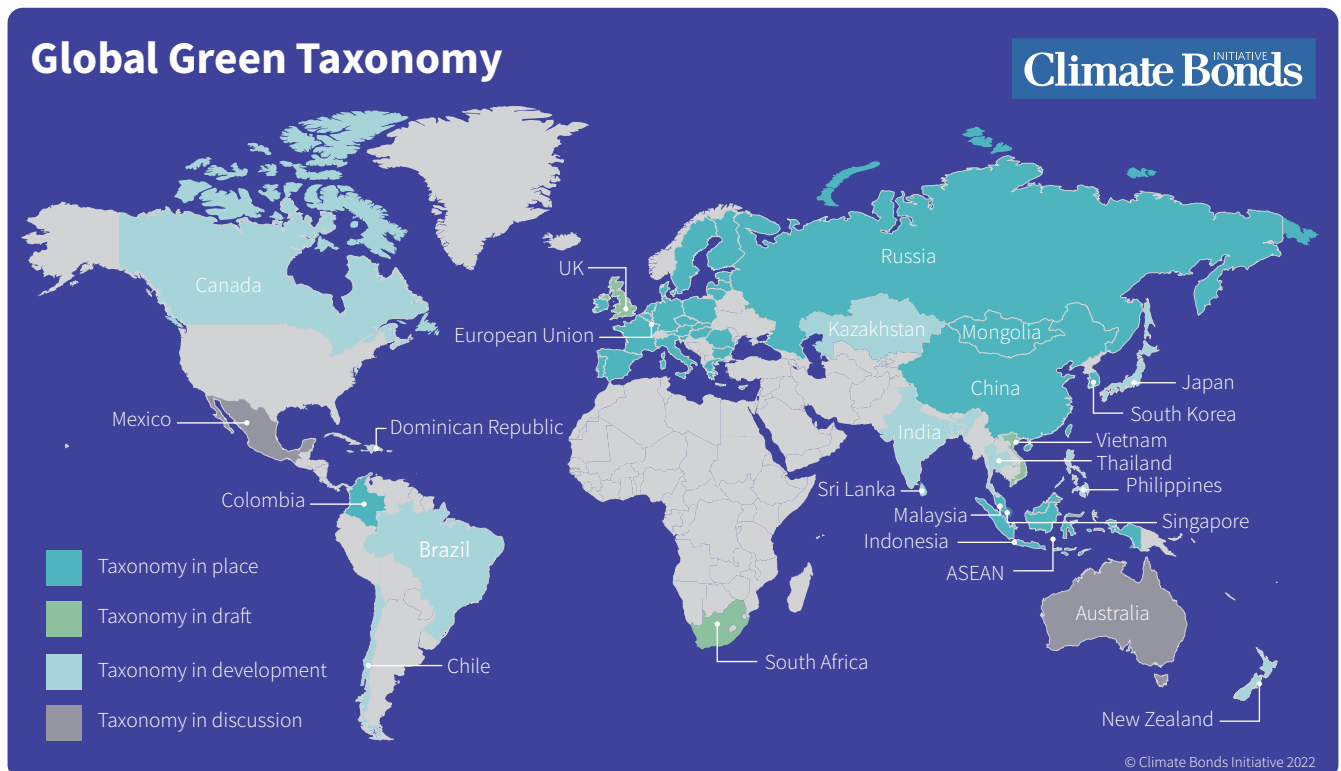
5. Conclusion and discussion 12

Background

The **Climate Bonds Initiative** (Climate Bonds) is an investor-focused, non-profit organisation whose main work includes green bond standards and certification, green bond data and market analysis, policy analysis and development. Climate Bonds has supported green bond market development in many countries and regions, including Europe, the US, China, India, Brazil, and Mexico, in partnership with governments and regulators, such as the United Nations Environment Programme, the United Nations Development Programme, the European Commission, multilateral development finance institutions, the OECD and others. Climate Bonds is an invited member of the Green Finance Committee of the Chinese Society of Finance.

Acknowledgements: The authors thank the support from Bolu Wang and Wenqin Lu.

Authors: Xiaoyun Xu, Wenhong Xie, Manshu Deng



1. Introduction

1.1 The purpose and utility of a taxonomy

The global green and sustainable finance market has seen exponential growth in the past several years. Sustainability themed financial products including bonds, funds, and ETFs have become an important part of the investment landscape. This has motivated the growth of detailed guidance, in the form of taxonomies, around what constitutes a qualifying investment to achieve desired environmental objectives and maintain market integrity.

A sustainability and/or green taxonomy is a classification system identifying activities, assets and revenue segments that deliver on key sustainability goals based on the eligibility conditions set out by the taxonomy. For example, the EU taxonomy classifies a list of environmentally sustainable economic activities with thresholds and metrics. China's green classification system identifies a list of assets and projects that are eligible to be financed using green bonds, as these assets and projects make a substantial contribution to improvements of environmental issues, climate change and resource efficiency.¹

The sustainability/green taxonomies add clarity and guidance to market participants by helping investors and companies identify green activities and make informed decisions on sustainable economic activities. A green taxonomy helps regulators and investors reduce the risks of greenwashing, and thus improve the integrity and reduce transaction costs in the sustainable finance market.

1.2 Alignment of leading global green definitions

In 2012, the Climate Bonds Initiative (Climate Bonds) introduced voluntary guidelines for the market in the form of a taxonomy and related certification scheme. Subsequently, as the sustainable finance market expanded, a growing number of jurisdictions around the globe started to recognise the importance of its approach and develop their classification schemes of sustainable economic activities to scale up green and sustainability-related financing.

As green taxonomies are designed by each jurisdiction, there are concerns about market fragmentation. The inconsistency in green definitions can confuse businesses and investors when conducting cross-border activities. Thus, harmonising eligible assets and metrics across jurisdictions has become an important aspect of current taxonomy development.

National and international organisations have made efforts to align various taxonomies to reduce market fragmentation and facilitate the cross-border flow of green capital. The European Commission launched a research project on green finance-related standards in 2016 and approved the first Delegated Act on the EU taxonomy in 2021. Countries including Mexico, the United Kingdom, Georgia, South Africa, and Bangladesh view the EU taxonomy as a benchmark and intend to adopt certain criteria and metrics.² Many taxonomies in draft also embrace the EU taxonomy's concepts of transition activities which focus on low-carbon transitions of the high-impact industries.

Recently, China has made further efforts to advance its green finance agenda. In April 2021, the People's Bank of China (PBOC), together with the National Development and Reform Commission (NDRC) and the China Securities Regulatory Commission (CSRC) jointly released the *Green Bond Endorsed Projects Catalogue (2021 Edition)* representing another major development in unifying its domestic green definitions. Widely considered the leading green taxonomy for China, the 2021 Edition Catalogue also adopts the do no significant harm (DNSH) principle, aligning with international standards.

There are multiple taxonomies currently in place or under development and this report summarises development trends and the implications for the sustainable finance market. This report also includes a comparison of the EU and China taxonomies, briefly introducing their design features, guiding principles, and technical screening criteria for market participants to understand the steps in taxonomy development. Finally, this report discusses the usability of green taxonomies and implementation options for market participants.

2. Audit of international taxonomy development

2.1 Taxonomy development milestones

Scaling up sustainable finance through a taxonomy-based approach has gained widespread momentum. In jurisdictions including China, the EU, Japan, Malaysia, Mongolia, Russia, green taxonomy regulations or guidance are already in place. Other jurisdictions are currently developing or considering green taxonomies, such as South Africa, South Korea, ASEAN, Bangladesh, Canada, Chile, Colombia, Dominican Republic, India, Indonesia, Kazakhstan, New Zealand, Philippines, Singapore, Thailand, the United Kingdom, Vietnam, Mexico, and Sri Lanka.³ In November 2021, the International Platform on Sustainable Finance (IPSF) published its first EU-China Common Ground Taxonomy (CGT) Instruction Report, setting the stage for closer alignment of green definitions between the world's two largest economies, both leaders in sustainable finance.

2.2 Taxonomy development approaches

While the principles and methodologies of national taxonomies differ, according to a UNDESA and IPSF input paper submitted to the G20 Sustainable Finance Working Group in 2021, the leading taxonomies generally follow three approaches listed below⁴ There could be overlap in these approaches, and the three methodologies can be used independently or in combination. For example, a taxonomy based on a technical screen criteria-based approach could include a white-list for some activities or could contain guiding principles.

1. Whitelist-based

This approach focuses on identifying eligible projects or economic activities under each sector or sub-sector. Instead of following a technology-neutral approach, this type of classification lists technologies that are considered green or sustainable and provides detailed descriptions of eligibility. The whitelist-based taxonomies do not always start by screening whole economic activities but seek to identify activities that are already green or contain green components which could bring more positive impacts to the environment. While the whitelist-based approach excels in its simplicity, it may require additional judgement calls from external reviews to ensure rigour. The whitelist approach could contain technical screening standards for certain activities and projects to define eligibility. This approach was applied to the taxonomies developed by China, Mongolia, and Russia.

Table 1. Milestones for global taxonomy development over the past two years.

Mongolia	National Green Taxonomy	December 2019
EU	Taxonomy Final Report by Technical Expert Group (TEG)	March 2020
Malaysia (Bank Negara)	Climate Change and Principle-based Taxonomy	April 2021
China	Green Bond Endorsed Project Catalogue (2021 Edition).	April 2021
Japan	Basic Guidelines on Climate Transition Finance (though not yet a detailed taxonomy)	May 2021
Russia	National green taxonomy adopted	November 2021

2. Technical screening criteria (TSC) based

A critical component of a green taxonomy, the TSC informs thresholds and screening criteria for economic activities and their compliance with the specific objectives. The TSC determine whether economic activities are making a substantial contribution to environmental and DNSH to other environmental objectives. Within sectors, the TSC approach is intended to be technology-neutral in screening the eligible projects and assets for inclusion and therefore does not pre-determine any specific technology or sub-sector activities. However, the operationalisation of the TSC would necessitate the availability of the required data. The EU, South Africa, and Korean taxonomies use the technical screening criteria approach, while the Chilean and Colombian taxonomies, currently under development, will likely also follow this methodology.

3. Principle-based

This approach defines a set of core principles for market participants. This approach is exemplified by taxonomies developed by Malaysia and Japan and is similar to the Green Bond Principles published by International Capital Market Association (ICMA). Bank Negara Malaysia uses a principles-based taxonomy for climate change mitigation and adaptation. It contains core guiding principles to assess which economic activities can be funded and includes a non-exhaustive list of examples.

2.3 Implications for the sustainable finance market

The growing acceptance of taxonomy-based regulations in various jurisdictions will contribute to legitimate market development. Green taxonomies enable investors to confidently source projects, assets, or expenditures that comply with regulations, and make better-informed investment decisions while minimising the risk of greenwashing. Alongside the taxonomy development around the world, clearer definitions for sustainable finance products, including green bonds, green loans, green asset backed securities (ABS), and green indices, could help channel the required capital to facilitate the low-carbon transition and resultant sustainable development.

Different approaches, granularity, and technical screening criteria in taxonomies impact their practical application in terms of data collection, product design, and verification processes. If taxonomies contain detailed screening criteria and disclosure requirements, investors can monitor the progress of sustainable investment and measure impacts within the respective sectors. For example, the EU taxonomy requires large companies to disclose the proportion of turnover and relevant CAPEX and OPEX aligned with the taxonomy. It requires investors to disclose the proportion of underlying investments that are taxonomy aligned.⁵ Through consistent reporting, investors could measure the degree of sustainability within an investment or a company's activities. However, the complexity of screening criteria and disclosure also brings many challenges to the data collection and verification processes for sustainable market participants. The PRI's report on EU taxonomy implementation details some of the challenges and recommendations that a group of investor institutions highlighted based on their experiences. The data required to apply the taxonomy may not be widely disclosed by companies. For example, relevant expenditure data on climate change adaptation is generally lacking and the qualitative nature of DNSH criteria makes it particularly challenging to assess.⁶

Further, taxonomies are dynamic tools that will evolve with scientific advancement, regulation updates, technology development, and market needs. Therefore, market participants providing feedback on their experience of using taxonomies will enable improvements and encourage broader acceptance.

2.4 Outlook and future steps

While there are concerns about market fragmentation, most taxonomy efforts generally follow a common set of principles: science-based, dynamic, and an acknowledgment of alignment with other taxonomies. The IPSF was launched in October 2019 to identify barriers and opportunities and enhance coordination across public authorities for sustainable finance. Through the IPSF, China and the EU, supported by other jurisdictions, are leading work on a CGT. The CGT is intended as a common taxonomy that could help improve the compatibility and interoperability of existing taxonomies and provide a reference for other jurisdictions to develop their own taxonomies.

IPSF published its first guiding report on the CGT in November 2021. Market participants can issue and trade green financial products in the international market using the CGT voluntarily. This is a crucial step forward and could, for example, facilitate China-EU cross border green investment, simplifying the due diligence process and reducing the cost of green certification. The CGT work will expand over time and other jurisdictions will be included to increase global comparability and interoperability.

3. Case study: Aligning the China and EU taxonomies

As green taxonomy pioneers, the EU and China have ignited discussions around the world on green finance definitions and encouraged policymakers and regulators from other jurisdictions to accelerate the establishment of their own sustainable finance regulatory regimes. This section provides a comparison of the EU and China taxonomies.

3.1 Evolution of the EU and China green taxonomies

The EU

March 2020 The European Commission (EC) established Technical Expert Group (TEG) officially released its Final Report on the EU taxonomy, which included the Technical Annex: Updated methodology & Updated Technical Screening Criteria (also known as the EU taxonomy), and the Usability Guide: EU Green Bond Standard.



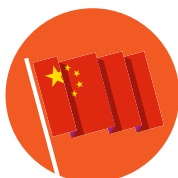
April 2021 The EC approved the first Delegated Act on sustainable activities for climate change adaptation and mitigation objectives.

July 2021 The EC adopted the Delegated Act supplementing Article 8 of the Taxonomy Regulation. This delegated act specified the content, methodology, and presentation of information disclosure requirements by financial and non-financial undertakings.

The EU taxonomy is an important benchmark to promote the low-carbon transition of the EU economy. It increases entity, and issuer awareness of the magnitude of the required economic transition and assists investors to identify green investment opportunities.

China

The green reform of China's financial system is co-supervised by multiple government ministries, including the People's Bank of China (PBOC), China Banking and Insurance Regulatory Commission (CBIRC), and National Development and Reform Commission (NDRC) from different perspectives and coordinated at different paces.



2012 The CBIRC introduced a green credit statistical form. This enabled it to monitor the environmental and social risks of bank loans by gathering data on loans related to environmental protection and circular economy activities.

2015 To scale up and populate green finance products, the PBOC published the first version of the *Green Bond Endorsed Projects Catalogue (2015)* along with its green financial bond issuance management regulation.

2019 The NDRC published the *Green Industry Guiding Catalogue (2019)* (Industry Catalogue), to clarify the magnitude of green industrial actions required throughout the entire economy. The Industry Catalogue and its associated technical criteria document can help policy makers to formulate investment, pricing, budget, and taxation policies to drive the development of green and sustainable industry.

Table 2. The overlap between the green taxonomy objectives summary

EU taxonomy objectives ¹¹	China taxonomy objectives ¹²
Climate change mitigation	Climate change response
Climate change adaptation	
The sustainable use and protection of water and marine resources	Environmental improvement (pollution control and ecological conservation)
The protection and restoration of biodiversity and ecosystems	
The transition to a circular economy	More efficient resource utilization (circular economy, waste recycling and pollution prevention)
Pollution prevention and control	

Source: IPSF Common Ground Taxonomy instruction report

2020 The PBOC built a green statistics system based on the NDRC Industry Catalogue to collect data on green loans from 24 major Chinese banks. The CBIRC's green credit statistical form was updated and differs from the industry catalogue.

21 April 2021 The PBOC, together with NDRC and CSRC, jointly released the amended version of the *Green Bond Endorsed Projects Catalogue (2021 Edition)* to coordinate green definitions among the financial regulators.⁷ This represents another major development in China's effort to unify its domestic green definitions. The consolidation of the multiple pre-existing green bond catalogues means that in future, the identification of the green attributes of all bonds will be based on the criteria of the updated and domestically harmonised catalogue, regardless of their type or the market in which they are issued. The *Green Bond Endorsed Project Catalogue (2021 Edition)* represents the most up-to-date, unified, and clear green definitions at the activity and project level in China.

3.2 The different approaches

The EU taxonomy sets six environmental objectives, while the China taxonomy contains three environmental objectives, and they overlap in some areas. The differences are a result of divergent priorities and expression rather than in intent or objective. China is tackling broader environmental pollution challenges, whereas the EU developed its taxonomy in a staged manner and initially focused on climate change adaptation and mitigation.

The technical criteria of the EU taxonomy are presented as a list of economic activities to which a set of criteria are provided to determine whether the activity is aligned with the EU's six environmental objectives. The technical screening criteria for 67 economic activities in the TEG taxonomy are based on the two guiding principles of substantial contribution and DNSH. As per the regulation, to be eligible, economic activity must make a substantial contribution to at least one or more of the six environmental objectives, whilst also ensuring that it will DNSH to the other five, comply with the relevant technical screening criteria to define the activity, and meet the requirements of the minimum Social Safeguards⁸.

The basic principle for project screening in China's green taxonomy (2021 Edition) is to assess whether the project brings environmental benefits by a) making substantive contributions to environmental improvement, b) responding to challenges of climate change, c) achieving resource conservation and efficient utilisation.

Under each of China's main objectives are several sub-objectives. The first-level directory echoes the three environmental goals with energy conservation, pollution prevention, resource conservation and recycling, eco-transportation, clean energy, ecological protection, and climate change adaptation. Energy conservation and clean energy are classified as climate change mitigation. Resource conservation and recycling, and clean transportation are intended to contribute to climate change mitigation or adaptation. China generally treats DNSH and minimum safeguards by referencing relevant domestic environmental and social policies and standards. The focus of those requirements, which include the Sanitary Standards for the Design of Industrial Enterprises, and the Regulations on Labour Security Inspection, is more on Environmental, Health and Safety (EHS).

Differences

The specific development issues, ecological challenges, and policy preferences of the two economies are not identical. As a result their priorities diverge. China's green taxonomy was designed by industry regulators that set ecological compliance requirements and green transition targets for various industry sectors, while the EU taxonomy is more inclusive.

3.3 Eligible activities

The TEG recommendations for the EU taxonomy identify categories of economic activities. The China green taxonomy (2021 Edition) includes six categories. Further elaboration on the definition of green attributes is made available in the second, third, and fourth level directory.

China's green taxonomy and the EU taxonomy overlap in many economic activities. For example, electricity, gas, steam, and air-conditioning, described in the TEG Technical Annex is accompanied by a list of over 20 sub-categories in the secondary directory, such as solar photovoltaic (photothermal) power generation, wind power generation, and marine energy generation etc.

Many of these sub-categories, such as solar photovoltaic power generation, can also be found under the clean energy industry in the China green taxonomy while others such as regional heating/cooling supply distribution are included under the green upgrade of infrastructure in the China green taxonomy. The table on page x provides an overview of the sector overlap.

Differences in coverage

Due to the differences described above, China and the EU approach the support of green economic activities differently. For example, due to the different stages of agricultural development, the EU's Technical Annex identifies areas such as carbon emission reduction, carbon fixation, and methane emission reduction while China's green taxonomy pinpoints agricultural ecological protection and agricultural non-point source pollution control. This may be because agricultural environmental problems are not as severe in the EU and therefore not as central to the EU's green economic activities.

The most notable difference may have resulted from the divergent industrial policies of the two economies. China's green taxonomy has prioritised support for strategic emerging industries. For example, the EU taxonomy recommends eligible green industry projects relating to vehicles using an emission intensity metric (50g CO₂ tailpipe emissions up to 2026, 0g thereafter). These vehicles include biofuel-powered vehicles, railway trains, light rail, and metro lines. Meanwhile, in China's green taxonomy, only projects related to new energy vehicles such as ZEVs, and batteries are included. Also, the EU taxonomy includes all low-loss grid projects, while the Chinese green taxonomy only includes smart grid-related projects.

In addition, the China taxonomy identifies a wider and more detailed scope such as green services, green equipment manufacturing projects, and related projects on green upgrading of industrial parks, etc. Relevant content is also added for a just transition mechanism, supporting regions and industries affected by the transition to a low-carbon economy. All of these provide valuable references for the formulation and improvement of the EU taxonomy, especially the projects and activities that have made substantial contributions to pollution prevention, biodiversity protection, resource conservation and efficient land use.

Table 3. Some specific differences

	China	EU
Climate change focus	Under China's 2030 carbon peaking and 2060 carbon neutrality policies, climate change is co-managed with pollution control measures. This is reflected in the taxonomy	The EU taxonomy has initially provided criteria for climate change (via mitigation and adaptation) and will gradually release details for the remaining four environmental objectives.
DNSH	Limited descriptions or guidance of the impacts of one economic activity on other environmental objectives, though it has adopted the international principle of DNSH. This may give rise to concerns about whether a project can be recognised as a green one when it involves several conflicting environmental objectives.	Clearly sets out DNSH criteria which exclude any activity causing harm to any of the other five environmental objectives.
Categorisation of all economic activities	Does not elaborate on how each economic activity/project contributes to the outcomes of climate change mitigation and adaptation, nor the evaluation and approval processes	Describe quantitatively or qualitatively in the form of criteria and thresholds.

3.4 Impact on global green standards and financial markets

The current iteration of the CGT combines the merits of both EU and China taxonomies and covers mitigation activities across six major industrial sections including forestry, manufacturing, energy, construction, transportation, and waste management, plus two innovative activities requiring multidisciplinary technical practices, such as underground permanent geological storage of carbon dioxide, and hydrogen storage. The CGT is a major initiative by the IPSF to address market fragmentation. By highlighting major areas of commonality between the EU and China taxonomies, the CGT enhances the interoperability and compatibility of the taxonomies used in two large green finance markets. It could also serve as a voluntary reference for market participants and other interested parties, and an analytical tool and reference for other jurisdictions that are developing their taxonomies. The CGT could also contribute to reduced verification costs and facilitate cross-border green capital flows.

There is now, an increasing appetite around the world to go beyond high-level categories in line with the ambition expressed through the EU and China taxonomies. Several countries are in the process of developing their taxonomies including South Africa, Canada Chile, Colombia, Singapore, and Sri Lanka.^{9,10} Early conversations indicate that these could be based on the CGT with additions and amendments to account for local context and economic priorities, described by the Hong Kong financial market as the Common Plus approach.

4. Implementation of green taxonomies

Taxonomies can work as a foundational tool that underpins broader green financial areas. Taxonomies are part of the solution to address information asymmetry at project and entity levels and can encourage clear disclosure and communication. As a result, investor demand can be translated into a supply of credible green and transition assets and expenditures suitable for thematic finance products. When accompanied by supportive policies and guidelines, taxonomies can catalyse green financial flow at a much larger scale.

This section explores current and prospective implementation for regulators, corporations, and financial intermediaries, and the role taxonomies play in further enhancing market integrity.

Taxonomy application for financial market authorities

In both European and Chinese models, the taxonomy is not a stand-alone tool. It is part of an ecosystem of standards and clear disclosure guidelines all of which enhance transparency and comparability contributing to broader adoption and product innovation.

The establishment of a clear and detailed EU taxonomy is number one on a list of ten actions laid out in the European Commission's Action Plan on Financing Sustainable Growth. The taxonomy is the foundation for other endeavours in the package, most notably developing the EU Green Bond Standard and guidance to improve disclosure of climate-related information by companies and financial market participants. In combination, these actions create business opportunities for entities, investors, and financial intermediaries to navigate the transition. These actions facilitate the collection of standardised data and information to support business and investment decisions. For example, the European Commission has made it mandatory for large companies that fall under the scope of the Non-Financial Reporting Directive (NFRD) to report shares of revenue, capital, and operational expenditures from taxonomy-aligned activities. Similarly, financial market participants (such as investment firms, asset managers, insurers, and credit institutions) must disclose what proportion of their activities qualify as taxonomy aligned. It is also likely that small and medium enterprises (SMEs) will be required to report these measurements as investors and end-producers pass through their reporting requirements. As this information becomes pervasive, creating more consistency and higher comparability across sectors and markets, financial market participants will be able to screen the market and design new products, such as taxonomy-related thematic funds, that focus on funding taxonomy-aligned activities, bridging investors who want to support positive environmental impact and entities that differentiate themselves through accepted standards.

China has also recognised the importance of having a tangible definition of green activities as a foundation of its green financial system. Five pillars are shaping China's current green financial system

1. Green financial standards and disclosure requirements
2. Financial institution supervision
3. Incentive and restraint mechanisms
4. Green financial product and market systems
5. International cooperation

With a series of accompanying policies, the green taxonomy is likely to be widely adopted as a reference tool as financial parties boost their green asset holdings and explore green financing-related innovations.

The development of the CGT is instrumental in supporting mutual understanding of taxonomies between China and the EU, leading to the adoption of a taxonomy on cross-border green capital flow. China Construction Bank (CCB) issued the first green bond under the CGT in January 2022. This has set a precedent for incorporating the CGT to support robust green labelling according to internationally recognised standards.

Taxonomy application for financial intermediaries and investors

Under green financial regulations where taxonomy defines a common language, financial institutions and investors can leverage the classification system for product and service development, risk management, and marketing and branding.

Product development

The EU Taxonomy Regulation applies to all equity and debt instruments in the region. This pushes more financial institutions to disclose the extent to which financial products, including equity funds, ETFs, bond funds, and index funds, align with the EU taxonomy. The same applies to large corporations. As more data becomes available at the entity and fund levels, financial institutions may be able to design EU taxonomy theme-related products such as bond or equity funds, or fund of funds.

Taxonomies have been widely used in bond issuance in China and applying the Catalogue is mandatory for Chinese domestic green bond issuers. The onshore green bond market, which began in 2016, had reached USD36.3bn by 2020.¹³ Types of issuers also proliferated, ranging from government-banked entities, financial corporates, non-financial corporates, local governments, and policy banks. Over the past several years, the local definitions of green have been absorbed into the vernacular of bond investors and issuers. Green bond indices have also been developed, providing investors with information on the shape and size of the market, performance measurement tools, and targets. Such indices have logically facilitated index-based financial products.

Table 4. Taxonomies serve as a key part of sustainable financing policies in both the EU and China.

	EU taxonomy	China's green taxonomy
Overarching policy framework	<p>- European Green Deal: transforming EU into a modern, resource-efficient, and competitive economy (no net emissions of GHG by 2050, economic growth decoupled from resource use, and no person and no place left behind, presented in December 2019)</p> <p>- Action Plan on Sustainable Finance, adopted by the European Commission in March 2018. The plan lists 10 actions to further connect finance with sustainability</p>	<p>- Integrated Reform Plan for Promoting Ecological Progress: promote a new pattern of modernisation in which humankind develops in harmony with nature (effective 21 September 2015)</p> <p>- Guiding Opinions of the People's Bank of China, the Ministry of Finance, the National Development and Reform Commission, and other Departments on Building a Green Financial System (effective 31 August 2016)</p> <p>- Other guiding opinions¹⁷</p>
Jurisdiction	<p>- Member States and the EU when adopting measures or setting up requirements on market actors concerning financial products or corporate bonds that are marketed as environmentally sustainable</p> <p>- Financial market participants who offer financial products as environmentally sustainable investments or as investments having similar characteristics</p>	<p>- Any issuers (foreign or domestic) issuing green bonds in China, including but not limited to green financial bonds, green corporate bonds, green enterprise bonds, green debt financing tools and green asset-backed securities</p>
Regulation	<p>The Taxonomy Regulation (published on 22 June 2020). Provisions on climate change mitigation and climate change adaptation apply from 1 January 2022; provisions on other four environmental objectives will apply from 1 January 2023</p>	<p>- NDRC Green Industry Guiding Catalogue (effective 20 May 2019)</p> <p>- PRC Green Bond Endorsed Project Catalogue - 2021 version (effective 1 July 2021)</p>
Coverage	<p>- A classification system that lists out green, or environmentally sustainable economic activities that make a substantial contribution to at least one of the EU's six climate and environmental objectives, observes DNSH rules, and demands minimum social safeguards</p> <p>- A transparency tool that will introduce mandatory disclosure rules, together with Non-Financial reporting Directive (NFRD) and Sustainable Finance Disclosure Regulation (SFDR)¹⁸</p>	<p>- A classification system that supports green industries, green projects, or green economic activities that meet specified conditions</p>
Application in green bond issuance	<p>- The EU taxonomy underpins the European green bond standard, which is voluntary</p>	<p>- Mandatory for onshore green bond issuance to be labelled green</p>
Other uses	<p>- Mandatory use: Large financial and non-financial companies (under NFRD) will have to disclose to what extent their business activities meet the EU taxonomy criteria. Financial market participants will have to disclose to what extent the activities that their financial products fund meet the criteria (on climate mitigation and adaptation objectives from January 2022, on the other four objectives from January 2023)</p> <p>- Voluntary uses: many possible voluntary uses by companies, financial intermediaries, and investors (e.g. for companies to plan their climate and environmental transition and raise finance for the transition, and for financial institutions to design credible green financial products)</p>	

Green ABS, can be used to provide funding to SMEs and are expected to contribute to ongoing market growth.¹⁴ Outstanding green loans (RMB12tn at end of 2020) could support the growth of this market pending further tightening of green loan definitions in line with the Catalogue.¹⁵

Risk Management

Taxonomies offer an important reference for risk managers and internal auditors and can be embedded into due diligence and assessment on prospective green projects, to avoid ambiguity and greenwashing. As financial institutions are navigating the transition to a low-carbon economy, a green industry classification can serve as an important reference tool.

Branding

Taxonomies establish green definitions. This presents opportunities for financial institutions to explain and communicate their green financial strategies using a common language. ICBC is one of the biggest banks in China and has embraced the taxonomy in all its activities. It positions itself as a pioneer and leader in green finance as an active issuer, underwriter, and investor of green bonds and other businesses such as green credit and green leasing.¹⁶

Taxonomy application for entities

Entities can use green taxonomies to classify and communicate their climate-related risk exposure and promote their sustainable or transition strategies. Those that are well-positioned and prepared may have first-mover access to cheaper green financing.

Taxonomies have been widely adopted at the project level through the use-of-proceeds green bonds. To facilitate more sectors, especially the carbon-intensive ones, another kind of taxonomy or labeling system is needed to help them fundamentally reshape and transform their strategy. Climate Bonds has proposed a flexible framework for the use of the transition label, facilitating entities to have access to funding using different financial instruments such as equity, SLBs, or general-purpose bonds.

Taxonomies can be applied to policies, financial instruments, entities, and projects as well as all sectors of industries in an economy. Taxonomies are the lynchpin of any green financial system and instrumental in the transition to a low-carbon, climate-resilient, and resource-efficient economy.

5. Conclusion and discussion

Policymakers and market participants are starting to embrace taxonomies as a powerful tool to mobilise green capital for the transition to an environmentally sustainable economy. Many jurisdictions around the world already have taxonomies in place or are in the process of actively drafting them. While approaches in taxonomy development tend to differ from country to country, the existing efforts are generally following a common set of principles: science-based, dynamic, incorporating measures for DNSH, and an emphasis on the regional characteristics and utilisation of existing labels and regulations.

Meanwhile, to prevent market fragmentation and avoid barriers to cross-border flows of green capital, further alignments and interoperability in taxonomies are urgently needed. Regulators now realise that a successful green taxonomy needs to strike a careful balance between compatibility with international practices and regional circumstances. Taxonomies also need to be dynamic and flexible to integrate future changes in the market and technology development. China and the EU have been leading the efforts in taxonomy harmonisation, through the IPSF platform which offers a strong foundation to others.

Taxonomies must be reasonably practicable to encourage maximum integration. Investors and entities can use taxonomies to inform product development, risk management, branding, and disclosure. However, implementation challenges remain including adapting taxonomies to accommodate the climate goals of various jurisdictions and combining taxonomies with existing ESG or other types of sustainability scoring. There are also variations in the data quality, transparency, comparability, and availability. Therefore, to improve usability, feedback from investors and companies on their experiences of using taxonomies must be acknowledged in further developments.

Taxonomies must continue to evolve to capture emerging scientific consensus and technological advancements. Extending existing green taxonomies to include transition guidance for high-emitting sectors will be essential if the objectives of the Paris Agreement are to be met. Decarbonising hard to abate sectors must take priority to 2030 when the impact can be greatest. Taxonomies under development have started to embrace the concepts of transition activities described in the EU taxonomy. Furthermore, there is growing support for taxonomy expansion to advance other social and environmental objectives, including biodiversity on land and in oceans, and climate and societal resilience.

Endnotes

1. ISO/TR 32220: Sustainable finance — Basic concepts and key initiatives. 2021. <https://www.iso.org/standard/77786.html>
2. NATIXIS. 2021. The New Geography of Taxonomies, A Global Standard-setting Race. https://gsh.cib.natixis.com/api-website-feature/files/download/12087/the_new_geography_of_taxonomies_final_version_november__2021_natixis_gsh.pdf
3. FoSDA. 2021. Taxomania! An International Overview. <https://futureofsustainabledata.com/taxomania-an-international-overview/>
4. UN-DESA and IPSF. 2021. Improving compatibility of approaches to identify, verify and align investments to sustainability goals. <https://g20sfwg.org/wp-content/uploads/2021/09/G20-SFWG-DESA-and-IPSF-input-paper.pdf>
5. Technical Expert Group on Sustainable Finance. Presentation on EU taxonomy usability https://ec.europa.eu/info/sites/default/files/business_economy_euro/events/documents/finance-events-200312-presentation-taxonomy-usability_en.pdf
6. Testing the taxonomy. 2020. <https://www.unpri.org/download?ac=11662>
7. Green Bond Endorsed Projects Catalogue (2021 Edition). <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4342400/2021091617180089879.pdf>
8. OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights.
9. South Africa Sustainable Finance Initiative. <http://sustainablefinanceinitiative.org.za/taxonomy-working-group-oct/>
10. Sustainable Finance-Defining Green Taxonomy for Canada. <https://www.scc.ca/en/standards/notices-of-intent/csa/sustainable-finance-defining-green-taxonomy-for-canada>
11. EU Technical Expert Group on Sustainable Finance. 2020. Taxonomy: Final report of the Technical Expert Group on Sustainable Finance. https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf
12. Guidelines for Establishing the Green Financial System (2016), Article 1
13. Climate Bonds Initiative data.
14. HKEX Research paper. *The Burgeoning Mainland Green ABS Market and the Potential Support from the Hong Kong Market*. https://www.hkex.com.hk/-/media/HKEX-Market/News/Research-Reports/HKEX-Research-Papers/2021/CCEO_GreenABS_202105_e.pdf?la=en
15. Base asset of green loans as classified by PBOC's *Special Statistical Framework for Green Loans*, not by the Catalogue
16. ICBC 2020 Special Report on Green Finance. <http://v.icbc.com.cn/userfiles/Resources/ICBCLTD/download/2021/2020lv202110.pdf>
17. EU Commission. *FAQ: What is the EU Taxonomy and how will it work in practice?* https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/sustainable-finance-taxonomy-faq_en.pdf
18. Other guiding opinions include: *Guiding Opinions on Building a Modern Environmental Governance System Issued by the General Office of the CPC Central Committee and the General Office of the State Council*; *Guiding Opinions of the State Council on Accelerating the Establishment of a Sound Economic System with Green, Low-carbon and Circular Development*



Prepared by Climate Bonds Initiative and sponsored by UK PACT

Design: **Godfrey Design**

© Published by Climate Bonds Initiative, February 2022
www.climatebonds.net

Disclaimer: The information contained in this communication does not constitute investment advice in any form and the Climate Bonds Initiative is not an investment adviser. Any reference to a financial organisation or debt instrument or investment product is for information purposes only. Links to external websites are for information purposes only. The Climate Bonds Initiative accepts no responsibility for content on external websites. The Climate Bonds Initiative is not endorsing, recommending or advising on the financial merits or otherwise of any debt instrument or investment product and no information within this communication should be taken as such, nor should any information in this communication be relied upon in making any investment decision. Certification under the Climate Bond Standard only reflects the climate attributes of the use of proceeds of a designated debt instrument. It does not reflect the credit worthiness of the designated debt instrument, nor its compliance with national or international laws. A decision to invest in anything is solely yours. The Climate Bonds Initiative accepts no liability of any kind, for any investment an individual or organisation makes, nor for any investment made by third parties on behalf of an individual or organisation, based in whole or in part on any information contained within this, or any other Climate Bonds Initiative public communication.